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DESCRIPTION

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ALLOY COATING FOR DIFFUSION BARRIER, METHOD FOR FORMING
SAME, AND HIGH TEMPERATURE DEVICE MEMBER

Technical field

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The present invention relates to a diffusion
barrier alloy film for use as a surface film (coating film)
for extending the service life of a high-temperature
apparatus member, which is used at a high temperature, such
as a gas turbine blade, a jet engine turbine blade, a
15 combustor, a nozzle, a boiler heat transfer pipe, a waste
disposal apparatus, a semiconductor fabrication discharge
gas treating apparatus, or the like, a method of
manufacturing such an alloy film, and a high-temperature
apparatus member incorporating such an alloy film.

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Background Art

High-temperature apparatus members, such as
industrial gas turbine blades, jet engines, or the like, for
example, are subject to a fluid temperature in excess of
25 1300°C. Those members, which are made of a metal material,
are susceptible to damage due primarily to high-temperature
oxidation. For the purpose of making the members resistant
to heat, it has heretofore been the general practice to